**CASE STUDY :- 1**

First we Created two EC2 Instance and on First Instance Named Jenkins\_Server on that we install Jenkins and Maven, And on Second Instance Name Tomcat Server we installed Tomcat Version 8 and use for Deployment.

**STEPS :-**

1. Launch Red-hat Linux EC2 instance

2. Install java and set path

# yum install java-1.8\*

#export JAVA\_HOME=/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.161-0.b14.el7\_4.x86\_64/

#PATH=$PATH: $JAVA\_HOME

3. Download Jenkins on to EC2 instance

sudo wget -0 /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat/jenkins.repo

sudo rpm --import https://pkg.jenkins.io/redhat/jenkins.io.key

4. Install Jenkins

# yum install jenkins

5. Start jenkins service

# service jenkins start

6. Check points

check java and jenkins version

java -version

**Configuration :-**

1. Open default port 8080 in security group

2. Login to Jenkins console

# <Public-IP>:8080

Username: admin

Password location: /var/lib/jenkins/secrets/initialAdminPassword

3. Skip plugins installation (we can do it later)

4. change admin password admin configurate Password

5. Configure java path under Jenkins configuration Manage Jenkins Global Tool Configuration JDK

**Run a test job :-**

1. Create "new item"

2. Enter an item name - hello-world

chose Freestyle project

3. Under Build section

Execute shell echo "hello world"

4. Save your job

5. Build job

6. Check "console output"

**Maven Installation** :-

cd /opt

ls

mkdir maven

ls

cd maven

1. wget https://dlcdn.apache.org/maven/maven-3/3.8.5/binaries/apache-maven-3.8.5-bin.tar.gz

2. Setup M2\_HOME and M2 paths in .bash\_profile of user. M2\_HOME=/opt/maven/apache-maven-3.5.3 M2=$M2\_HOME/bin

3. Install git

# yum install git -y

4.Check maven version

#mvn -version

Configuration :-

1. Login to Jenkins console

2. Install maven & git plugin without restart

Manage Jenkins Manage Plugins Available "Maven Invoker" Manage Jenkins Manage Plugins Available "github"

3. Set maven & git path

Manage Jenkins Global Tool Configuration | Maven Manage Jenkins Global Tool Configuration git

**Tomcat Installation on AWS :-**

1.Install wget Command :-

#yum install wget -y

cd /opt

2. Download the Url file of Tomcat tar.gz

wget https://dlcdn.apache.org/tomcat/tomcat-8/v8.5.79/bin/apache-tomcat-8.5.79.tar.gz

3. To Unzip File and Extract Command :-

tar -zvxf apache-tomcat-8.5.79.tar.gz

cd apache-tomcat-8.5.79

4. Change permission To use :-

chmod +x startup.sh

chmod +x shutdown.sh

5.Get Path:-

echo $PATH

6.Create a SoftLink to Access a file from anywhere

ln -s /opt/apache-tomcat-8.5.79/bin/startup.sh /usr/local/bin/tomcatup

ln -s /opt/apache-tomcat-8.5.79/bin/shutdown.sh /usr/local/bin/tomcatdown

**Run a test job :-**

1. Create "new item"

2. Enter an item name - hetlo-world chose maven project

3. Select "git" as source code management and give below maven project git-https://github.com/arsr319/maven-hello-world.git Goals - install package

4. Save your job

5. Build job

6. Check "console output"

